Fig. 3. The same. Largest form of spicule. Natural size. Diagrammatic.

Fig. 4. The same. Typical form of large spicule, magnified, to show spines or aborted rays of head, composing, in juxtaposition and *in situ*, the surface in some parts. Copied from fig. 11, 'Annals,' 1878, vol. i. pl. ix.

Fig. 5. The same. Head of same, more magnified, to show microspination of central ray, and *a*, bifurcation of a lateral one. Also copied from *l. c.*

Fig. 6. The same. Small spicule with twelve to fourteen rays. Much magnified. Diagrammatic.

Fig. 7. The same. Large spicule with fewer rays and slightly inflated centre. *a*, end view; *b*, lateral view. Much magnified.

Fig. 8. The same. Group of small spicules *in situ* taken from surface of large excretory canal in the outer part of the sponge. Relatively magnified. Showing:—*a a*, arms of large spicules; *b b*, small spicules with central inflation and arms more or less broken off; *c c c*, arms attached to each other. Scale 1-24th to 1-830th inch.

Fig. 9. *Hemiasterella typus*, n. sp. (recent sponge). Skeleton-spicule, linear, acuate; magnified (scale 1-24th to 1-1800th inch). *a*, flesh-spicule, stelliform; magnified (same scale). *b b*, forms with from four to eight rays, more magnified.

Fig. 10. *Hemiasterella affinis*, n. sp. (recent sponge). Skeleton-spicule, linear, acerate; magnified (scale 1-24th to 1-1800th inch). *a*, flesh-spicule, stelliform; magnified (same scale). *b b*, other forms, more magnified; *c*, one with central inflation.

Fig. 11. Spicule, fossil (? of a Renierid sponge), magnified; abundant in the same deposit with *Holasterella conferta*. (Scale 1-48th to 1-1800th inch.)

XV.—*On two new Species of Fishes from the Bermudas.*

By Dr. A. Günther, F.R.S.

Mr. J. Matthew Jones, who for several years past has paid especial attention to the fishes occurring at the Bermudas (see 'Annals,' 1874, vol. xiv. pp. 370, 455), has again succeeded in discovering two species which appear hitherto to have escaped observation. The types have been kindly presented by the discoverer to the British Museum.

Gerres Jonesii.

D. $\frac{9}{10}$. A. $\frac{3}{7}$. L. lat. 49. L. transv. $\frac{5\frac{1}{2}}{10}$.

The height of the body is two sevenths of the total length (without caudal). Præorbital and præopercular entire, the latter with the angle slightly rounded. The groove for the processes of the intermaxillaries does not extend to the vertical from the centre of the eye, is elongate, and entirely free from scales. The snout is as long as the eye, and equals the width

of the interorbital space. The spines of the fins are slender, the second of the dorsal slightly exceeding half the length of the head, and being more than twice as long as the second of the anal fin, which is stoutish and shorter than the eye. Uniform silvery.

Six specimens, from 6 to 9 inches long, were obtained.

Belone Jonesii.

D. 25. A. 22.

The free portion of the tail is rather depressed, somewhat broader than deep, the lateral line terminating in a low black-coloured keel. The length of the head is less than one third of the total (without caudal); its upper surface is broad, flat, striated; frontal bones diverging behind, leaving a broad space between them which is covered by skin; this space tapers in front, and is closed between the orbits. Maxillary entirely hidden by the præorbital. Jaws and teeth strong; vomerine teeth none; tongue rough. The diameter of the eye is two thirds of the width of the interorbital space, and two fifths of the length of the postorbital portion of the head. Body stout, not much compressed; pectoral fin as long as the postorbital portion of the head. Ventral fin midway between the root of the caudal and the eye. The middle and hinder dorsal and anal rays subequal in length, short, the last terminating at a considerable distance from the root of the caudal. Caudal fin deeply lobed. Scales very small, irregular and adherent.

A single specimen, 3 feet long, was obtained.

XVI.—*Remarks on Munier-Chalmas's Classification of the* Dactyloporida*. By Dr. Fr. Toula †.

The segments of *Cymopolia barbata*, Lamx., are so nearly identical with those of *Dactylopora*, Lamk., that the latter must be considered as founded on fragmentary portions of *Cymopolia*. This generic name ought therefore to be adopted, as it applies to complete organisms, while Lamarck's, although a prior name, denotes mere fragments. Prof. Decaisne, in 1842, proved several marine organisms (*Cymopolia* among them), which

* "Observations sur les Algues calcaires appartenant au groupe des Siphonées verticillées (*Dasycladées*, Harvey) et confondues avec les Foraminifères:" note de M. Munier-Chalmas, &c. (Comptes Rendus de l'Acad. des Sci. vol. lxxxv. no. 18, Oct. 29, 1877, pp. 814–817).

† Imper. Geolog. Instit. Vienna, Report, August 31, 1878. Communicated by Count Marschall, F.C.G.S.